The Goodyear Tire & Rubber Company

Akron, Ohio 44316-0001

8EHQ-0696-13674

ORIGINAL

8EHQ-96-13674

June 19, 1996

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Attn: Section 8(e) Coordinator
Office of Pollution Prevention and Toxics (OPPT)
U. S. Environmental Protection Agency
401 M Street, S.W.
Washington, DC 20460

Contains No CBI

88960000154

Dear Ladies/Gentlemen:

Subject: **TSCA Section 8(e) Notice**

This submittal does not contain Confidential Business Information.

The Goodyear Tire & Rubber Company is currently sponsoring studies at Springborn Laboratories, Inc. to assess the potential toxicity of a rubber antioxidant in the environment. The identity of the material is as follows:

CAS Name: 1,4- -Benzenediamine, N, N'- mixed Ph and tolyl derivs.

CAS Number: 68953-84-4*

Draft results from these studies were recently communicated to Goodyear. The findings indicate that the test chemical has a 48-hour EC_{50} for daphnid mortality of greater than 1.8 mg/L and a 14-day LC_{50} in common carp of 0.43 mg/L. These non-trivial adverse effects and the possibility of bioaccumulation suggest that the data should be submitted as a notice under TSCA Section 8(e).

Consequently, under the requirements of Section 8(e) of the Toxic Substances Control Act and EPA's statement of Interpretation and Enforcement Policy, 43 Fed. Reg. 1110 (March 16, 1978), The Goodyear Tire & Rubber Company is providing the EPA with the following summaries:

WINGSTAY 100 - Acute Toxicity to Daphnids (Daphnia magna) Under Flow-Through Conditions, Springborn Laboratories, Inc.

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WINGSTAY 100 - Prolonged (14-Day) Acute Toxicity to Common Carp (Cyprinus carpio) Under Flow-Through Conditions, Springborn Laboratories, Inc.

These findings have not been reported in final form. However, upon completion, these reports will be forwarded to EPA.

My address and telephone number are as follows:

The Goodyear Tire & Rubber Company
Department 100D
1144 East Market Street
Akron, Ohio 44316-0001
Telephone: (330) 796-2362

Sincerely,

Michael W. Smith
Section Manager, Chemical Information
Systems & Regulatory Affairs

MWS:jh
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Attachments (2)

SUMMARY

Wingstay® 100 - Acute Toxicity to Daphnids (*Daphnia magna*) Under Flow-Through Conditions

SPONSOR: The Goodyear Tire & Rubber Company

PROTOCOL TITLE: "Wingstay® 100 - Acute Toxicity to Water Fleas (*Daphnia magna*) Under Flow-Through Conditions, Following OECD Guideline #202", Springborn Protocol #: 020195/OECD/115/Goodyear and Protocol Amendment #1 dated 6 December 1995.

REPORT NUMBER: 96-1-6328

STUDY NUMBER: 13537.0995.6123.115

TEST SUBSTANCE: Wingstay® 100, Lot No. 137170393; CAS Registry No. 68953-84-4, a gray, flaky substance, was received from Goodyear Research on 7 September 1994. Wingstay® 100 was tested on a whole product basis.

TEST DATES: 6 to 8 December 1995

SPECIES: *Daphnia magna*
≤24 hours old
Source: Springborn culture facility

TEST CONDITIONS: 48-hour duration, 19 to 21 °C, a photoperiod of 16 hours light:8 hours dark at a light intensity of 60 to 80 footcandles

DILUTION WATER: Fortified well water
pH: 7.9
Specific conductivity: 500 to 600 µmhos/cm
Total hardness as $CaCO_3$: 170 to 180 mg/L
Total alkalinity as $CaCO_3$: 110 mg/L

NOMINAL TEST CONCENTRATIONS: 1.3, 2.2, 3.6, 6.0 and 10 mg/L

MEAN MEASURED CONCENTRATIONS: 0.20, 0.36, 0.68, 1.1 and 1.8 mg/L

RESULTS:

Based on the results of this study, the 48-hour EC50 for Wingstay® 100 and *D. magna* was empirically estimated to be greater than 1.8 mg/L, the highest mean measured concentration tested. Based on the absence of immobilization and adverse effects, the No-Observed-Effect Concentration (NOEC) established for this study was 0.36 mg/L.

SUMMARY

Wingstay® 100 - Prolonged (14-Day) Acute Toxicity to Common Carp (*Cyprinus carpio*) Under Flow-Through Conditions

SPONSOR: The Goodyear Tire & Rubber Company

PROTOCOL TITLE: "Wingstay® 100 - Modified, Prolonged Acute Toxicity Test with Common Carp (*Cyprinus carpio*) Under Flow-Through Conditions, Following OECD Guideline #204", Springborn Laboratories Protocol #:020195/OECD#204/171/GOODYEAR and Protocol Amendments #1 and #2 dated 12 September and 14 November 1995, respectively.

REPORT NUMBER: 96-2-6362

STUDY NUMBER: 13537.0695.6117.171

TEST SUBSTANCE: Wingstay® 100, Lot No. 137170393 NP1017, CAS Registry No. 68953-84-4, a gray, flaky substance, was received from Goodyear Research on 7 September 1994. Wingstay® 100 was tested on a whole product basis.

TEST DATES: 14 to 28 November 1995

TEST SPECIES: *Cyprinus carpio*, SLI Lot #95A97
Mean wet weight = 2.5 g (range 1.4 to 5.1 g); N = 30
Mean total length = 57 mm (range 43 to 70 mm); N = 30
Source: Osage Catfisheries, Osage, Missouri

TEST CONDITIONS: 14-day duration, 21 to 22 °C, illumination of 16 hours light: 8 hours dark at 25 to 50 footcandles

DILUTION WATER: Well water
pH: 7.0 to 7.4
Specific conductivity: 130 to 160 µmhos/cm
Total hardness as $CaCO_3$: 34 to 35 mg/L
Total alkalinity as $CaCO_3$: 20 to 21 mg/L

NOMINAL TEST CONCENTRATIONS: 0.10, 0.23, 0.51, 1.1 and 2.5 mg/L

MEAN MEASURED CONCENTRATIONS: 0.053, 0.12, 0.19, 0.28 and 0.67 mg/L

RESULTS: The 14-day LC50 value was estimated by nonlinear interpolation to be 0.43 mg/L (corresponding 95% confidence interval calculated by binomial probability of 0.28 to 0.67 mg/L). Based on the observed mortality (i.e., 100%), the Lowest-Observed-Effect Concentration (LOEC) was determined to be 0.67 mg/L. The No-Observed-Effect Concentration (NOEC) was determined to be 0.28 mg/L.